



circuit breaker 3VA5 UL frame 125 3-pole, starter protection TM120M, AM, In=40A without overload protection short-circuit protection Ii=5...12 x In without connection

| Model   |                             |
|---|-----------------------------|
| product brand name  | SETRON                      |
| product designation   | Molded-case circuit breaker |
| product designation / according to UL file  | HEAP                        |
| Product version   | Starter protection          |
| design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the overcurrent release   | TM120M                      |
| protection function of the overcurrent release  | I                           |
| number of poles   | 3                           |
| General technical data  |                             |
| Tension assignée d'isolement Ui   | 800 V                       |
| Max. rated operational voltage Ue with AC 50/60Hz   | 690 V                       |
| power loss [W] / maximum  | 3.7 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 1.23 W                      |
| mechanical service life (switching cycles) / typical  | 15 000                      |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz   | 8 000                       |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz   | 4 000                       |
| electrical endurance (switching cycles) / at 480 V  | 8 000                       |
| electrical endurance (switching cycles) / at 600 V  | 4 000                       |
| Neutral conductors / upgradeable/retrofitable   | No                          |
| ground-fault monitoring version   | Without                     |
| product function  |                             |
| • communication function  | No                          |
| • phase failure detection   | No                          |
| • other measurement function  | No                          |
| Current   |                             |
| marking / acc. to UL 489 / 100%-rated breaker   | No                          |
| Max. rated operational current of the frame size  | 125 A                       |
| Courant permanent assigné Iu  | 40 A                        |
| operational current   |                             |
| • at 40 °C  | 40 A                        |
| • at 45 °C  | 40 A                        |
| • at 50 °C  | 40 A                        |
| • at 55 °C  | 40 A                        |

|  |                                    |
|--|------------------------------------|
| <ul style="list-style-type: none"> <li>• at 60 °C</li> <li>• at 65 °C</li> <li>• at 70 °C</li> </ul>   | 40 A<br>40 A<br>40 A               |
| <b>Switching capacity according to IEC 60947</b>   |                                    |
| breaking capacity maximum short-circuit current (Icu) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>   | 150 kA<br>70 kA<br>10 kA           |
| breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>   | 150 kA<br>70 kA<br>5 kA            |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>   | 330 kA<br>154 kA<br>17 kA          |
| <b>Adjustable parameters</b>   |                                    |
| Adjustable response value current / li min.  | 200 A                              |
| Adjustable response value current / li max.  | 480 A                              |
| Ground fault protection / tripping switchable / I2t=ON/OFF   | No                                 |
| <b>Mechanical Design</b>   |                                    |
| height [in]  | 5.5 in                             |
| Height   | 140 mm                             |
| width [in]   | 3 in                               |
| Width  | 76.2 mm                            |
| depth [in]   | 3 in                               |
| depth  | 76.5 mm                            |
| <b>Connections</b>   |                                    |
| arrangement of electrical connectors / for main current circuit  | Without connection                 |
| type of electrical connection / for main current circuit   | Without                            |
| <b>Auxiliary circuit</b>   |                                    |
| number of CO contacts / for auxiliary contacts   | 0                                  |
| <b>Accessories</b>   |                                    |
| product extension / optional / motor drive   | Yes                                |
| <b>Environmental conditions</b>  |                                    |
| protection class IP / on the front   | IP40                               |
| ambient temperature <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C |
| <b>Certificates</b>  |                                    |
| reference code / acc. to IEC 81346-2   | Q                                  |
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB   | No                                 |
| <b>General Product Approval</b>  |                                    |



[Miscellaneous](#)

|                          |     |                           |                   |                   |
|--------------------------|-----|---------------------------|-------------------|-------------------|
| General Product Approval | EMC | Declaration of Conformity | Test Certificates | Shipping Approval |
|--------------------------|-----|---------------------------|-------------------|-------------------|



[Special Test Certificate](#)

[Miscellaneous](#)



Shipping Approval

other



[Miscellaneous](#)

#### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3VA5140-1MH31-0AA0>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5140-1MH31-0AA0>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

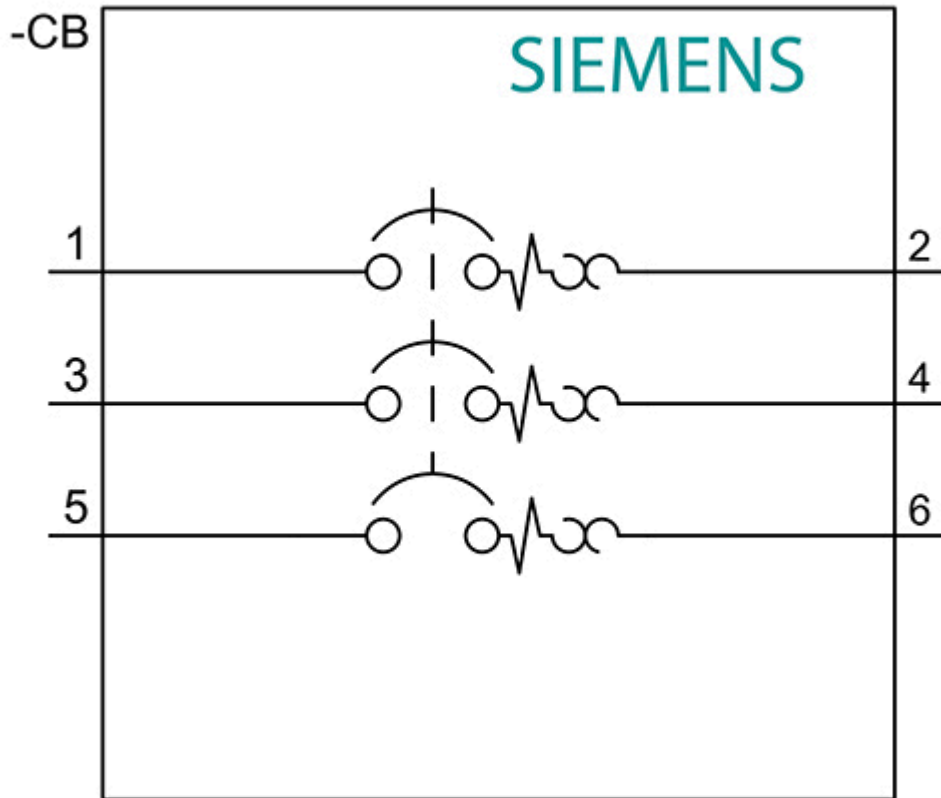
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5140-1MH31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5140-1MH31-0AA0)

**Tender specifications**

<http://www.siemens.com/specifications>







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